

# Collection of reproductive data for coastal reef fish species of Funafuti, Tuvalu

## FIELD GUIDE



C<sub>2</sub>O Fisheries, February, 2022

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Citing this document:

Welch, D.J. (2022) Collection of reproductive data for coastal reef fish species of Funafuti, Tuvalu: FIELD GUIDE. Report to the Tuvalu Fisheries Department, C<sub>2</sub>O Fisheries, Cairns, Australia. 10p.

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## About this field guide

This field guide provides a practical quick guide to facilitate accurate collection of reproductive data for coastal fish species while working in the field or laboratory. This field guide **should not** be used for training in reproductive data collection. Rather, users should first read and understand the full training manual and accompanying resources. These resources have been developed to inform the processes for estimating size at maturity and establishing size limits for key coastal reef fish species of Funafuti, Tuvalu. These resources are intended to guide Tuvalu Fisheries Department (TFD) staff in supporting implementation of the Funafuti Reef Fisheries Stewardship plan, and as outputs of the Pacific Islands Regional Oceanscape Program (PROP).

This guide provides a simple visual guide for:

1. Fish dissection methods
2. Judging whether a fish is immature or mature, and
3. Determination of fish's sex – female or male.

### Key terminology

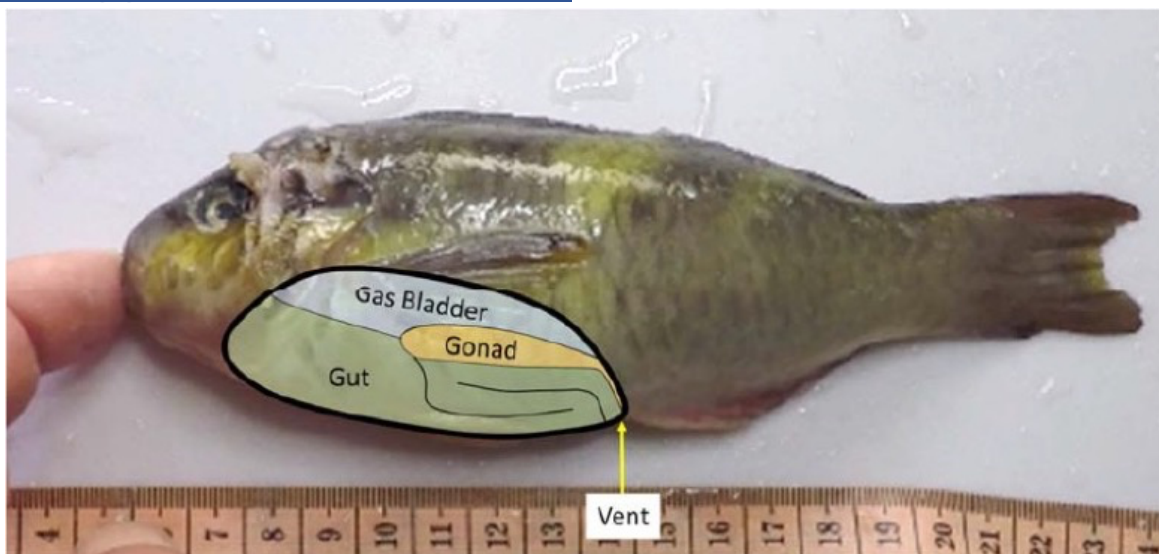
**Gonads** - refers to the fish's reproductive organs.

**Testes** - refers to the male reproductive organs.

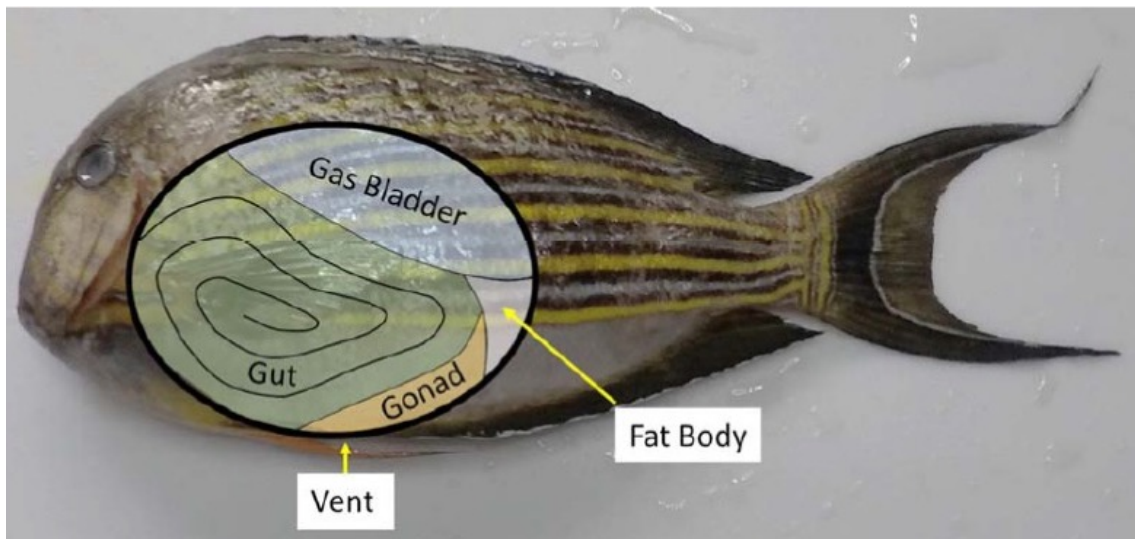
**Ovaries** - refers to the female reproductive organs.

## 1. Fish dissection methods

### Locating gonads – most coral reef fish



## Locating gonads – surgeonfish and unicornfish



## Steps for fish dissections

1. Use the scissors to cut from the vent in a straight line to the underside of the gills section.



2. Cut upwards through the belly flap just behind the pectoral fin.



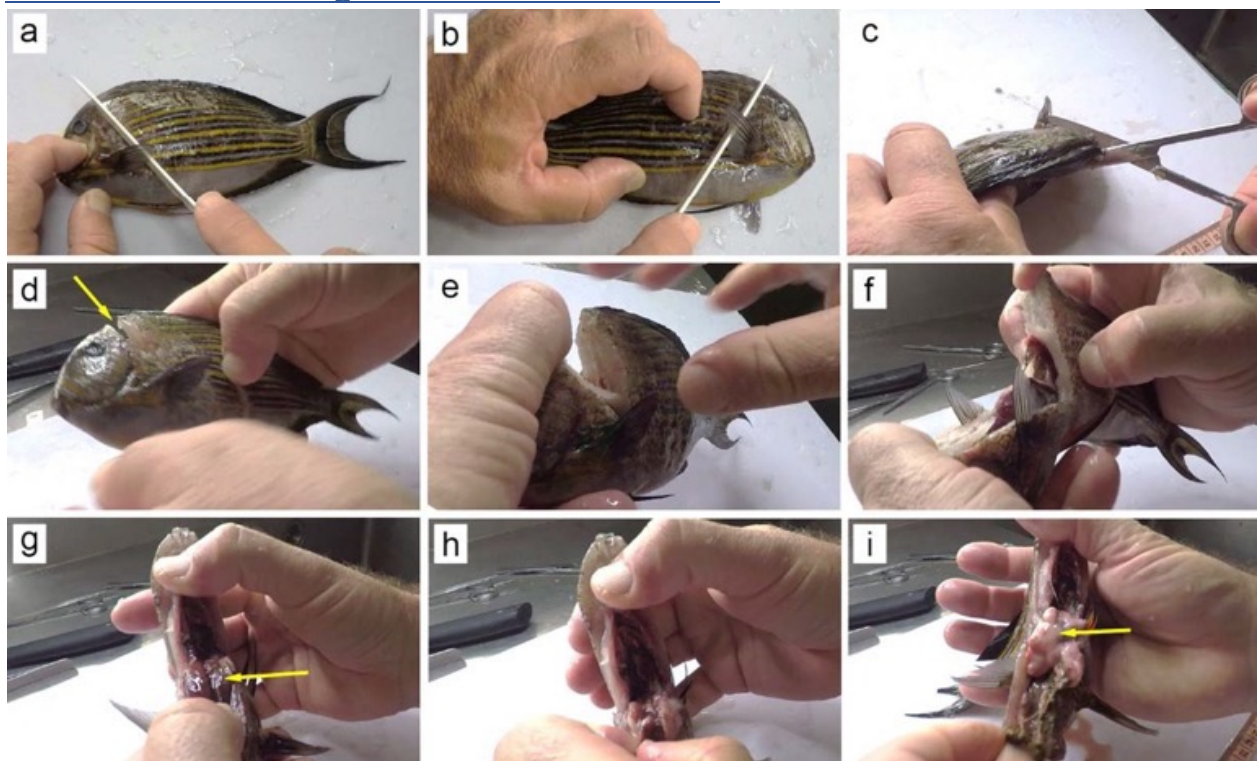
3. Make small cuts as needed until you can pull the belly flap away to expose the internal organs. Use the tweezers to pull the gut forward towards the head



4. Depending on the species, locate the gonads. These tend to be longer than one third of the length of the body cavity



## Fish dissections – surgeonfish and unicornfish



## 2. Judging whether a fish is immature or mature

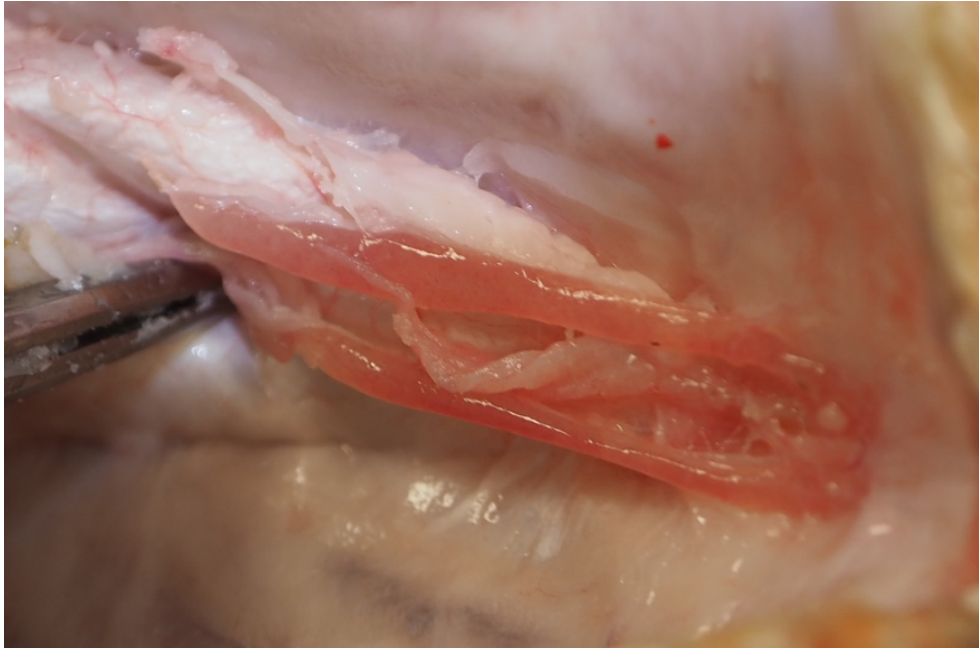
### IMMATURE

- Gonads tend to be narrow and clear.
- Gonads often appear threadlike.
- Blood vessels are indistinct.



## INACTIVE

- Gonads are small in size.
- Blood vessels may be evident.
- Often have signs of a thickened wall in ovaries.

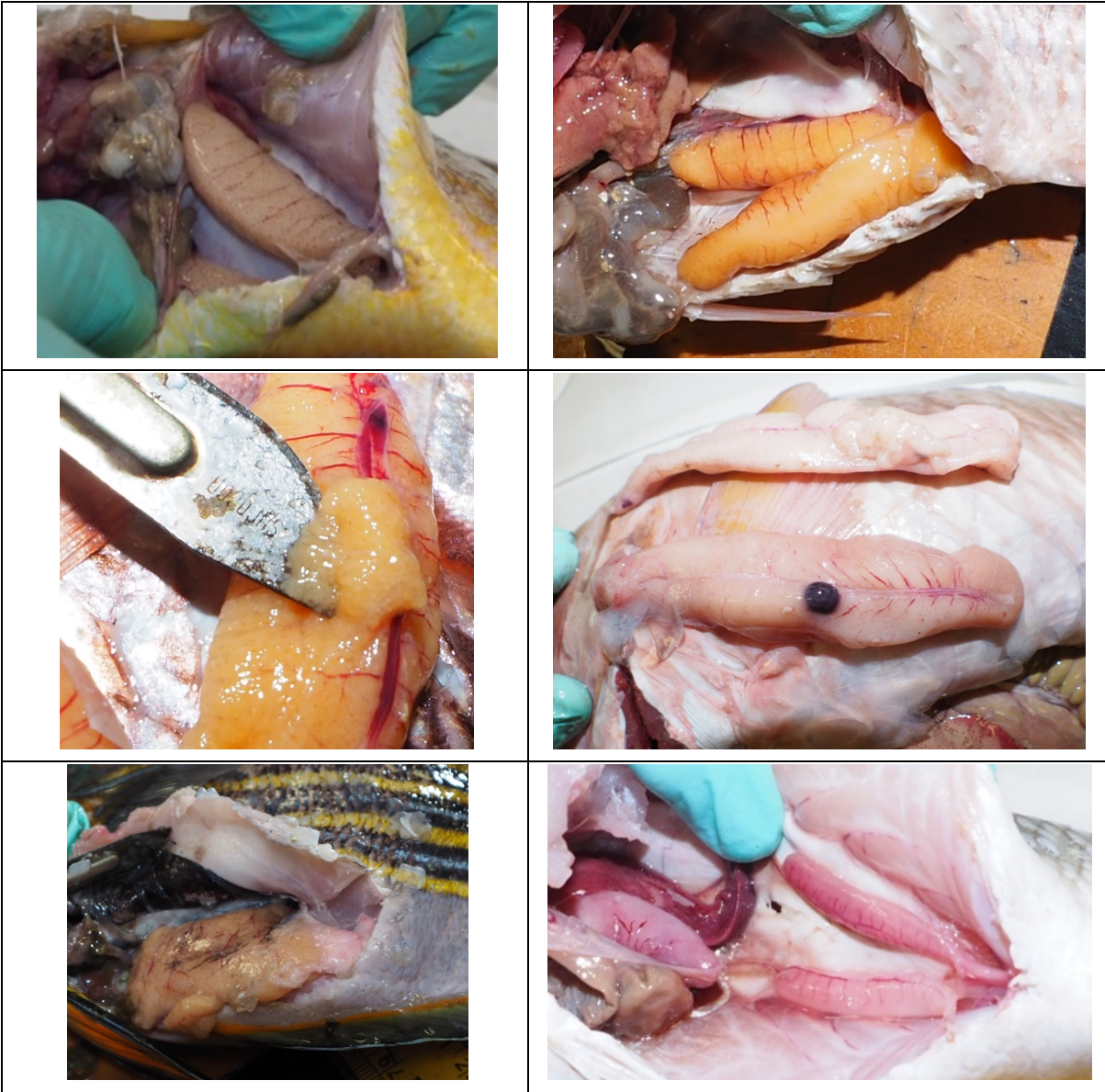


## **3. Determination of a fish's sex – female or male**

### FEMALES (Ovaries)

- Tend to be sausage, tubular or sack-like in shape.
- Are usually shades of orange or pink in colour.
- They often have obvious blood vessels.







## MALES (Testes)

- Roughly triangular in cross-section.
- Pale or whitish in colour.
- Often smooth and shiny in appearance.





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